outcomes following BRCA testing in women with ovarian cancer and their female first-degree relatives. Two strategies are being compared: no testing versus BRCA testing. Estimates of cancer incidence and mortality, uptake and impact of risk-reducing surgery and costs of BRCA testing, cancer treatment and palliative care were based on literature review. Outcomes are expressed as quality-adjusted life years (QALYs). One-way sensitivity analyses are conducted for key model parameters. **RESULTS:** We first evaluated the cost-effectiveness of gene testing in relatives of ovarian cancer patients with BRCA mutations. Results showed this was associated with an ICER below the UK cost-effectiveness threshold of £20,000 per QALY gained compared with no testing. Sensitivity analyses showed the results were robust. **CONCLUSIONS:** We demonstrate that gene testing in unaffected female first-degree relatives of women with ovarian cancer due to BRCA mutations is cost effective. The final results will consider the cost effectiveness of offering BRCA testing to all eligible ovarian cancer cases and their unaffected female first-degree relatives.

PCN169

BURDEN OF RENAL IMPAIRMENT: RELATIVE HEALTH CARE RESOURCE USE IN PROSTATE CANCER PATIENTS WITH BONE METASTASES

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OBJECTIVES: Existing evidence suggests that around 49% of patients with bone metastases from solid tumors show evidence of renal impairment (eGFR<60ml/min/1.73m^2) following diagnosis of bone metastases with approximately 80% of them developing chronic kidney disease. The objective of this analysis is to assess the economic and clinical burden of renal impairment in prostate cancer patients with bone metastases. **METHODS:** Patients with a diagnosis of prostate cancer and bone metastases from the Adelphi Real World Disease Specific Programme USA 2012 were included in the analyses. Propensity Score Matching was used; patients with evidence of renal impairment were matched with those without on a 1:1 basis, controlling for: age, BMI, smoking status, employment status, and relevant comorbidities. Outcomes included number of hospitalizations and length of stay in the past 12 months prior to the point of data collection. A Wilcoxon sign-rank test was used to quantify the impact of renal impairment. **RESULTS:** 109 patients per group were included in the analyses (total 218). The renal impairment group was estimated to have an increased risk of inpatient visits of 63% (p=0.036) compared to the control group (0.78 vs 0.48 inpatient visits per patient per year). Additionally, the renal impairment group had a mean of 2.43 (p=0.027) more inpatient days per year than the control group (5.00 vs 2.56 inpatient days per patient per year). It was also observed that the patients in the renal impairment group were less likely to have received chemotherapy (37% vs 47% received chemotherapy). **CONCLUSIONS:** Findings suggest an increase in health care utilization in the hospital setting in prostate cancer patients with bone metastases and renal impairment. In addition, compromised renal function in those patients may potentially have restricted the use of nephrotoxic chemotherapy agents.

PCN170

ESTIMATING THE VOI OF PIVOTAL STUDIES TOWARDS PREDICTIVE BIOMARKERS OF HIGH DOSE ALKYLATING CHEMOTHERAPY IN TRIPLE NEGATIVE BREAST CANCER

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OBJECTIVES: To estimate the expected benefits from a pivotal randomised controlled trial of predictive biomarkers for high dose alkylating chemotherapy (HDAC) in triple negative breast cancer (TNBC) and to inform decisions about the design and priority of further studies. **METHODS:** A markov decision model compared treating 40- years old TNBC women with HDAC based on four predictive biomarker strategies: 1) BRCA1-like by MLPA testing; 2) BRCA1-like by aCGH testing, 3) strategy 1 followed by XIST and 53BP1 testing; and 4) strategy 2 followed by XIST and 53BP1 testing, versus treating all patients with standard chemotherapy. A Dutch societal perspective and a 20-year time horizon were used. Input data came from literature and expert opinions. We assessed four primary outcomes: the expected value of (partial) perfect information (EV(P) PI), the expected value of sample information (EVSI) and the expected net benefit of sampling (ENBS) for the ongoing pivotal TNM trial (NCT01057069) and/or potential future studies. **RESULTS:** The population EVPI was €663 million (M). The EVPPI suggests prioritizing further research towards effectiveness parameters, specifically prevalence and positive predictive value of the biomarkers; response rates in biomarker negative patients and TNBC unclassified patients, which are estimated to collectively have a value of information of circa €630M. The value of further research on transition probabilities is estimated at € 41M, followed by utilities at €34M and costs at €34M. Further information on transition probabilities could be gathered from the TNM trial and that of effectiveness parameters and costs from accompanying studies to this trial, altogether estimated to have an ENBS of €657 M. **CONCLUSIONS:** Further research on predictive biomarkers for HDAC should focus on gathering transition probability data from the current TNM trial, and on accompanying studies to derive data on other effectiveness parameters and costs.

PCN171

REAL WORLD DATA IN ONCOLOGY: THIRD- AND FOURTH-LINE TREATMENTS ADMINISTERED IN METASTATIC COLON-RECTAL CANCER (MCRC)

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OBJECTIVES: The objective of this study was to assess the oncologists' real clinical practice in the management of mCRC patients, with a focus on the 3rd, 4th and later lines of therapy in Italy. **METHODS:** Data presented in this study were collected from medical records obtained by Italian oncologists on mCRC patients between March and April 2014 and retrieved from an extra boost of ONCOVIEW database. ONCOVIEW is a continuous syndicated study on cancer treatment in the hospital setting, based on the collection of patient questionnaires. Patients inclusion criteria were the presence of an mCRC diagnosis, 3rd or later actual therapy line and no participation in a phase II or III clinical study. Information collected included patient demographic characteristics, mCRC characteristics (TNM Classification, Karnofsky performance status scale and mutation analyses) and treatments (actual and previous schedules, dosages and durations). Furthermore, an evaluation of the "Rechallenge" occurrence, in other words the use in 3rd or later line of treatment of drugs previously used, has been performed. **RESULTS:** 261 patients diaries have been collected: 218 out of 261 patients were in third line of treatment, while 43 patients were in 4th or later treatment line. The most administered schema among third line patients was Capecitabine alone (63 patients), while the most used schema in fourth line was a combination of Fluorouracil and Folinic Acid (7 patients). About 40% of molecules administered in 3rd line and 67% of molecules administered in 4th line were used in previous lines. **CONCLUSIONS:** Results from the present study underline the unmet medical need in 3rd or later line of treatment of mCRC patients and the need for additional evidence-based treatment options.

PCN172

BURDEN OF DRUG WASTE IN ONCOLOGY: OPTIMIZATION OF RESOURCE USE

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OBJECTIVES: Minimizing waste of the use of drugs allows optimization of available resources in a scarce environment. Grouping patients may be an alternative to reduce drug waste in oncology. The aim of this study is to evaluate the economic impact of streamlined form of dispensation and percentage of drug wastage of the total drug expenditure in supplementary health system. **METHODS:** Patients receiving antineoplasic treatment for stomach, colon, rectosigmoid, rectum, lung and breast cancer were eligible and selected retrospectively from the private market administrative claims database (Evidencias database). Name and any other personal identification were not available at the database. Prescription and date of administration were collected from 3 selected private institutions considering large to small size in terms of patients. Waste of drug was calculated and it was defined as unavoidable or inappropriate clearance of partially drug use. All analyses were performed according to regimen and disease. Saving costs were calculated assuming minimization of waste by optimizing fully drug among group patients. Costs were derived from Simpro table. Exchange rate used was 1.00USD = 2.20BRL. **RESULTS:** Seventeen drugs were identified among reported chemotherapy regimens in which 11 were analyzed due to potential of saving costs. From these, only 6 drugs could be rationalized. The optimization of drug dispensing would lead to a year savings of US$ 83.587,88, US$ 17.592,22 and US$ 8.225,24 to a large, medium and small clinic, respectively. Calculated drug wastage represented from 2% to 8% of the total drug expenditure, regarding on the antineoplastic used. Five of the 11 drugs did not cause savings due to small number of patients receiving those treatments. **CONCLUSIONS:** Grouping patients for drug wastage minimization is an effective way to reduce costs. Furthermore, savings can be increased by gathering patients of different diseases.

PCN173

RESOURCES UTILIZATION FOR THE INVESTIGATION OF PULMONARY NODULES IN A UNIVERSITY HOSPITAL CENTER IN QUEBEC, CANADA

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OBJECTIVES: Lung cancer is the leading cause of death among cancer patients; therefore, the detection of a pulmonary nodule cannot be ignored. With the increasing prevalence of lung nodule detection, the investigation requires a large number of health care resources. The objective of this study was to measure the health care resources used for the investigation of pulmonary nodules. **METHODS:** A retrospective medical chart review was conducted at the CHUM-Hotel-Dieu in Montreal, Canada. Eligible patients were selected consecutively using the electronic appointment book of the pulmonary clinic, from January 1st 2011 to May 23rd 2012. Inclusion criteria were: 40 year-old and over, presenting a pulmonary nodule ranging from 0.8 to 3.0 cm with no prior history of cancer in the last 5 years and no history of lung cancer. Patient's demographics, nodule characteristics, medical information and resources utilization were extracted for each eligible patient. **RESULTS:** A total of 47 patients (23 women and 24 men, mean age = 64) were included in the analysis. The mean nodule size was 1.8 cm. Thirteen patients (28%) had a benign nodule and 34 (72%) had a malignant nodule. The most frequent non-invasive procedures were Thorax CT-Scan, PET-Scan and Chest X-ray performed at least once in respectively 96%, 85% and 77% of patients. The minimally invasive procedures (bronchoscopy and transthoracic needle biopsy) and the invasive procedures (thoracoscopy and thoracotomy) were mostly performed in patients who were eventually diagnosed with a lung cancer. On average, patients with a benign nodule underwent 0.77 minimally invasive or invasive procedures vs. 1.94 for patients with a malignant nodule (p=0.028). **CONCLUSIONS:** A significant amount of health care resources are deployed for the investigation of pulmonary nodules. This study tends to demonstrate that minimally invasive and invasive procedures are mostly deployed for the diagnosis of malignant nodules.

PCN174

IMPACT ON HOSPITALIZATION DERIVED FROM THE USE OF DENOSUMAB FOR THE PREVENTION OF SKELETAL-RELATED EVENTS IN PATIENTS WITH BONE METASTASES SECONDARY TO BREAST CANCER IN GERMANY

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